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EXAMINER

JOO, JOSHUA

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/989,866	Applicant(s) KUROSE ET AL.	
	Examiner JOSHUA JOO	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. This Office action is in response to communication dated 02/06/2008.

Claims 1-15 are presented for examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection. New ground(s) of rejection are necessitated by Applicant's amendment.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 6, and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of US Patent #7,076,540, in view of Aukia et al. US Patent #6,594,268.

Application No. 09/989866 Claim 1	US Patent #7,076,540 Claim 1
<u>a network information collecting section</u>	<u>network-information collecting means</u>

for obtaining information about a network service provided by the first device, responsive to the network service request, by communicating with said first device;	which collects said information on the network-service-provision state of said service-request-compatible apparatus;
a setting device determining section for specifying the second device, which does not support the protocol of the network service request, by calculating an IP route for providing the network service to the user based on information from the network information collecting section, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) and the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information;	target-apparatus determining means which determines a service-request-incompatible apparatus which cannot provide a network service provided by said service-request-compatible apparatus, based on said information on the network-service-provision state which is collected by said network-information collecting means;
a service mapping section for mapping both of a first network service parameter used in the protocol for band reservation and routing information into a second network service parameter to be set in the second device specified by the setting device determining section, wherein the second service parameter is used in another protocol for priority-based control;	service mapping means which determines a service which is to be set in said service-request-incompatible apparatus, based on said information on the network-service-provision state which is collected by said network-information collecting means and information on said service-request-incompatible apparatus determined by said target-apparatus determining means;
a service setting section for communicating with the second device and setting the second network service parameter obtained by the service mapping section in the second device,	and service setting means which sets said service determined by said service mapping means, in said service-request-incompatible apparatus, wherein said network-service request received by said service-request-compatible apparatus is a request selected from a list including a bandwidth-reservation request for a quality of service (QoS) control to guarantee bandwidth and a priority-reservation request for a class of service (CoS) control to prioritize traffic.
thereby said service allocating device responds to the network service request by controlling the second network service parameter of the second device, allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received	

by the first device.	
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5. Although the conflicting claims are not identical, they are not patentably distinct from each other. As shown above, both application No. 09/989866 and US Patent #7,076,540 disclose similar inventions with variations in wording. Both the application and patent comprise of a second device that does not support a protocol of a network service provided by the first device and an apparatus with means to map a service to be set in the second device, wherein the service is for bandwidth reservation and priority control.

US Patent #7,076,540 recites of mapping a service but not parameters. However, it is inherent the service would comprise parameters to be set into the incompatible apparatus. US Patent #7,076,540 does not explicitly recite of said service allocating device responds to the network service request by controlling the second network service parameter of the second device, allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received by the first device. However, according to US Patent #7,076,540, the service assignment apparatus sets the service in the network-service incompatible device to allow the network-service incompatible device to respond to a service request (preamble). Therefore, by setting the service, the service assignment apparatus is controlling the second network service parameter of the second device and allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received by the first device.

US Patent #7,076,540 does not recite of calculating an IP route for providing the network service to the user based on information from the network information collecting section, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) and the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information.

Aukia et al. US Patent #6,594,268 teaches of calculating an IP route for providing the network service based on information from the network information collecting section, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) and the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information (col. 1, lines 58-66; col. 9, lines 26-31; claim 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made for US Patent #6,594,268 to calculate an IP route from a pair of SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information, which would allow routing based on quality of service and network topology.

6. Claims 6 and 11 comprise features similar to claim 1 and are rejected for same reasons.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Applicant is seeking to patent a service allocating device comprising of sections. According to the instant specification dated 11/19/2001, page 96, lines 7-9, Applicant intends on the device to be implemented as a program. Furthermore, the claimed device does not comprise any functional hardware, and a device is defined as software. (The IEEE Standard Dictionary of Electrical and Electronic Terms: “device (1) (software) a mechanism or piece of equipment designed to service a purpose or perform a function.”) Therefore, the claimed invention of a device is directed to software, and a software device does not meet one of the four categories of invention and is not statutory. Specifically, software is not a

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series of steps or acts and thus is not a process. Software is not a physical article or object and as such is not a machine or manufacture. Software is not a combination of substances and therefore not a composition of matter.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor, US Patent #6,785,730 (Taylor hereinafter), in view of Aukia, US Patent #6,594,268 (Aukia hereinafter) and Kujoory et al. US Patent #6,021,263 (Kujoory hereinafter).

11. As per claims 1, 6, and 11, Taylor teaches substantially the invention as claimed including a service allocating device, method, and computer-readable storage medium in a network where at least one first device, which responds to a network service request for band reservation transmitted by a user in a protocol associated with the first device, and at least one second device, which does not support the protocol of the network service request, are connected, said second device having a setting of which can be modified from outside said second device, comprising:

a network information collecting section for obtaining information about a network service provided by the first device, responsive to the network service request, by communicating with said first device (col. 6, lines 2-5; col. 8, lines 23-34. Receive incoming message from a source and determine source protocol type. col. 8, line 64-col. 9, line 10. Protocols supported by translator. col. 5, lines 7-11. Sources may be gateway, Internet, intranet.);

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a setting device determining section for specifying the second device, which does not support the protocol of the network service request, by calculating an IP route for providing the network service to the user based on information from the network information collecting section, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) (col. 6, lines 14-15; col. 13, lines 6-9.

Determine target device. col. 2, line 45-50; col. 3, lines 28-30. Devices having differing data formats and different protocols. col. 7, lines 51-53. Transmit message to the destination device.);

a service mapping section for mapping both of a first network service parameter used in the protocol for band reservation and routing information into a second network service parameter to be set in the second device specified by the setting device determining section (col. 7, lines 26-32. Categorizes and translates message into destination format. col. 9, lines 4, 10-14. Select proper protocol including RSVP. It is inherent that RSVP provides bandwidth reservation.);

a service setting section for communicating with the second device and setting the second network service parameter obtained by the service mapping section in the second device (col. 6, lines 31-33; col. 7, lines 51-52; col. 13, lines 45-46. Sends converted message to target device.),

thereby said service allocating device responds to the network service request by controlling the second network service parameter of the second device, allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received by the first device (col. 7, lines 30-32. Translates messages between devices. col. 3, lines 14-23. Allow devices and applications to interoperate.).

12. Taylor does not specifically teach of that the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information. Taylor also teaches of implementing RSVP, but is not explicit that the second service parameter is used in another protocol for priority-based control.

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13. Aukia teaches of calculating an IP route from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information (col. 1, lines 58-66; col. 9, lines 26-31; claim 1).

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for Taylor's system to calculate an IP route from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router and routing information. The motivation for the suggested combination is that Aukia's teachings would improve Taylor's teachings by allowing adaptive routing based on quality of service and network topology.

15. Taylor and Aukia still do not explicit disclose that the second service parameter is used in another protocol for priority-based control.

16. Kujoory teaches a system for mapping first parameters to second parameters, wherein the second parameters are used for bandwidth reservation and priority control (col. 5, lines 21-27. Map RSVP parameters to ATM Qos Parameters. col. 4, lines 16-20, 65-67. Allocation of resources including priority. col. 5, lines 1-4. ATM and RSVP have the components to enable allocation of resources.).

17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to map first parameters to second parameters, wherein the second parameters are used for bandwidth reservation and priority control. The motivation for the suggested combination is that Kujoory's teachings would improve the suggested system by allowing implementation of network resources and QoS services between varying technologies and devices.

18. Claims 2, 5, 7, 10, 12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor, Aukia, and Kujoory, in view of Bertin et al, US Patent #5,687,167 (Bertin hereinafter).

19. As per claim 2, 7, and 12, Taylor teaches the service allocating device according to claim 1, further comprising: a service setting storing section storing setting contents of the first and second devices which respond to previous network services (col. 6, lines 2-5, 22-32. Recognition of protocols and application types of devices. col. 9, lines 10-16. Determine source and destination protocol.). However, Taylor does not specifically teach a service competition calculating section in checking a competition relation between network service requests from a plurality of users based on information stored in the service setting storing section, adjusting the competition relation, and a determining the setting contents of the first and second devices so as to respond to the network service to be provided.

20. Bertin teaches of a service allocating system for storing priority information for network services (col. 2, line 44-53; Col 14, lines 24-33); checking relation between network service requests from a plurality of users based on stored information; adjusting the priorities of users; and determining the setting contents to respond to the network service to provided (col. 13, line 64—col. 14, line 37; col. 17, lines 15-25).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store priority information for network services; check relationship between network service requests from a plurality of users based on stored information; adjust the priorities of users; and determine the setting contents to respond to the network service to provided. The motivation for the suggested combination is that Bertin's teachings would improve the suggested system by providing efficient management of traffic by dynamically changing connection settings to allow connections with high priority level.

22. As per claims 5, 10, and 15, Taylor does not teach of the service allocating device according to claim 2, further comprising: a service stoppage request generating section obtaining information about a

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network service provision state of the first device, detecting provision stoppage of a network service by the first device based on the network service provision state information, and generating a service stoppage request, a service setting storing section storing a plurality of setting information to the first and second devices, which correspond to a network service that existed before provision stoppage of the network service is detected, and a service competition calculating section calculating a service competition relation that is modified by the detected provisional stoppage of the network service according to both the service stoppage request and storage information of the service setting storing section.

23. Bertin teaches of a service allocating system that stores the setting information for user connections and calculate a service competition relation based on storage information (modify services based on priorities and bandwidth) (col. 13, lines 30-47; col. 14, lines 1-37).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to store the setting information for user connections and calculate a service competition relation. The motivation for the suggested combination is that Bertin's teachings would allow adjusting network services to service users based changing conditions in the network and on user requests. Bertin does not specifically teach of detecting provision stoppage of a network service by the first device based on the network service provision state information, and calculating a service competition relation that is modified by the detected provisional stoppage of the network service according to both the service stoppage request. However, Bertin teaches of terminating connections and reallocating resources to other users. Therefore, it would have been obvious to one of ordinary skill in the art to modify the system to detect the stoppage of network service and determine service competition based on the stoppage request, which would allow a node to release the reservation of resources that was held for the network service, i.e. reallocate resources, and use the resources for other nodes or devices requesting network services.

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25. Claims 3, 4, 8, 9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor, Aukia, and Kujoory, in view of Ricciulli, US Patent #6,275,470 (Ricciulli hereinafter).

26. As per claims 3, 8, and 13, Taylor does not specifically teach the service allocating device according to claim 1 further comprising: a priority route selecting section selecting a device for providing a higher function of a requested network service, of the first and second devices which are connected to the network, and determining a communications route through which the selected device is connected; and a route comparison section comparing a communications used prior to a new network service request with a communications route determined by the priority route selecting section.

27. Ricciulli teaches a system for selecting devices for providing alternate route through the network nodes; determining a communications route for servicing the request; and comparing a previously used route with the newly selected route to determine if the new route provides better performance (col. 4, lines 16-53).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to select devices for providing alternate route through the network nodes; determine a communications route for servicing the request; and compare a previously used route with the newly selected route to determine if the new route provides better performance. The motivation for the suggested combination is that Ricciulli's teachings would improve network communication of the suggested system by identifying paths that provide better performance (col. 4, lines 38-43).

29. As per claims 4, 9, and 14, Taylor does not teach the service allocating device according to claim 3, further comprising a route setting generating section determining a communications route suitable for provision of the new network service based on a comparison result obtained by the route comparison

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section, which performs control so that the new network service can be provided, using a communications route determined by the route setting generating section.

30. Ricciulli teaches a system for determining route suitable for provision of the new network service based on comparison results and using the determined communications route so that the new network service can be provided (col. 4 lines 38-52).

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to determine a route suitable for provision of the new network service based on comparison results and using the determined communications route so that the new network service can be provided. The motivation for the suggested combination is that Ricciulli's teachings would improve network communication of the suggested system by identifying paths that provide better performance (col. 4, lines 38-43).

Conclusion

32. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- i) RFC 2205 discloses of the Resource ReSerVation Protocol (RSVP).

33. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Thursday 8AM to 5PM and every other Friday.

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35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J. J./

Examiner, Art Unit 2154

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154